

# Beatles Sent to the Moon

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Anyone on the moon early this morning could have listened to a hit recording by the Beatles, thanks to the ingenuity of 18-year-old Mark Morgan of 37804 Mahonia Dr., Palmdale. Mark, who will enter Antelope Valley College next month, used homemade apparatus to produce a powerful laser beam which was transmitted to the moon and back without losing any of its intensity.

The beam, sent from his backyard, was powered by a helium and neon gas mixture. It lasted nine minutes and 27 seconds, starting 10 seconds after 12:29 a.m.

Mark beamed a programmed nine-minute segment from Pasadena radio station KRLA, which included a talk by a station official, the National Anthem—and a Beatle record.

But if anyone were on the Moon, Mark explained seriously, he would have needed a signal interpolator and a standard short-wave receiver to decode the program.

Although scientists have previously transmitted laser beams to the Moon and back, Mark said this was probably the first time the beam had been transmitted for a sustained period of time.

The "Laser" beam (the word comes from Light Amplification by Stimulated Emission of Radiation) illuminated an area several miles in diameter on the Moon, Mark said, but since it is an ultraviolet light, special goggles would have to be worn to see it.

"I got interested in electronics six years ago," Mark added. "I hope to major in electronics or physics at college."

His homemade device weighs about 15 pounds. "It's basically a long tube, a telescope-like object," he said. "Toward the base it looks like a gun or a movie camera. It has a 100-watt output."

How did the young scientist know that the beam had successfully transmitted the programmed segment to the Moon and back?

Well, he and the station had set up a signal interpolator and a short wave radio receiver.

And, as they listened to the playback of the National Anthem, the talk by a station official and—of course—the Beatle recording, they knew the scientific venture had been a success.